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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,477	03/11/2004	Kee-Yean Ng	70030733-1	7408
22878	7590	09/21/2005		
AGILENT TECHNOLOGIES, INC. INTELLECTUAL PROPERTY ADMINISTRATION, LEGAL DEPT. P.O. BOX 7599 M/S DL429 LOVELAND, CO 80537-0599			EXAMINER QUARTERMAN, KEVIN J	
			ART UNIT	PAPER NUMBER
			2879	
DATE MAILED: 09/21/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,477

Applicant(s)

NG ET AL.

Examiner

Kevin Quarterman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Reference character "250" of Figure 2.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plurality of cavities, the plurality of LEDs, and the plurality of electrical connections cited in independent claim 14 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
3. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Reeh (US 6,576,930).

6. Regarding independent claim 1, Figure 3 of Reeh shows a light-emitting diode display device comprising a substrate (2); a plurality of walls (8) disposed on the substrate, the plurality of walls forming a cavity (9), the cavity being filled with an encapsulant (15), the encapsulant not including fluorescent material; an LED (1) disposed on a first portion (2) of the substrate within the cavity; an electrical connection (14) between the LED and a second portion (3) of the substrate; and a fluorescent material overlay (4) at a top end of the cavity.

7. Regarding claim 2, Figure 3 of Reeh shows the fluorescent material overlay including a layer of phosphor particles (6).

8. Regarding claim 3, Figure 3 of Reeh shows the fluorescent material overlay having a substantially consistent thickness and includes a substantially uniform matrix of phosphor particles.

9. Regarding claim 4, Reeh discloses the fluorescent material overlay including a combination of two or more fluorescent material types (col. 4, ln. 53-57).
10. Regarding claim 5, Reeh discloses the fluorescent material overlay including phosphor particles having a mean diameter within the range of 1 micrometer to 50 micrometer (col. 6, ln. 1-2).
11. Regarding claim 6, Reeh discloses the fluorescent material overlay including phosphor particles having a mean diameter within the range of 10nm to 100nm (col. 9, ln. 1-5).
12. Regarding claim 7, Reeh discloses the fluorescent material overlay may include an organic dye (col. 9, ln. 24-28).
13. Regarding independent claim 8, Figure 3 of Reeh shows a light-emitting diode display device comprising a substrate (2); a plurality of walls (8) disposed on the substrate, the plurality of walls forming a cavity (9); an LED (1) disposed on a first portion (2) of the substrate within the cavity; an electrical connection (14) between the LED and a second portion (3) of the substrate; and a fluorescent material overlay (4) at a top end of the cavity, the fluorescent material overlay including a plastic layer (29) and layer of fluorescent material.
14. Regarding claim 9, Figure 3 of Reeh shows the fluorescent material overlay having a substantially consistent thickness and includes a substantially uniform matrix of phosphor particles.
15. Regarding claim 10, Reeh discloses the fluorescent material overlay including a combination of two or more fluorescent material types (col. 4, ln. 53-57).

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16. Regarding claim 11, Reeh discloses the fluorescent material overlay including phosphor particles having a mean diameter within the range of 1 micrometer to 50 micrometer (col. 6, ln. 1-2).

17. Regarding claim 12, Reeh discloses the fluorescent material overlay including phosphor particles having a mean diameter within the range of 10nm to 100nm (col. 9, ln. 1-5).

18. Regarding claim 13, Reeh discloses the fluorescent material overlay may include an organic dye (col. 9, ln. 24-28).

19. Regarding independent claim 14, Figure 3 of Reeh shows a light-emitting diode display device comprising a substrate (2); a plurality of cavities (9), each of the plurality of cavities formed within a plurality of walls (8) disposed on the substrate; a plurality of LEDs (1), each of the plurality of LEDs disposed within a separate one of the plurality of cavities, each of the plurality of LEDs disposed on a first portion (2) of the substrate; a plurality of electrical connections (14) connecting one of the plurality of LEDs to one or more respective second portions (3) of the substrate; and a fluorescent material overlay (4) at a top end of the cavities (See also col. 9, ln. 45-58).

20. Regarding claim 15, Figure 3 of Reeh shows the fluorescent material overlay including a layer of phosphor particles (6).

21. Regarding claim 16, Figure 3 of Reeh shows the fluorescent material overlay having a substantially consistent thickness and includes a substantially uniform matrix of phosphor particles.

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22. Regarding claim 17, Reeh discloses the fluorescent material overlay including phosphor particles having a mean diameter within the range of 1 micrometer to 50 micrometer (col. 6, ln. 1-2).

23. Regarding claim 18, Reeh discloses the fluorescent material overlay including phosphor particles having a mean diameter within the range of 10nm to 100nm (col. 9, ln. 1-5).

24. Regarding claim 19, Reeh discloses the fluorescent material overlay may include an organic dye (col. 9, ln. 24-28).

25. Regarding claim 20, Reeh discloses the fluorescent material overlay including a plurality of fluorescent material types, and each of the plurality of fluorescent material types corresponds to a portion or portions of the plurality of cavities (col. 4, ln. 53-62).

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Doxsee (US 6,936,857) discloses a white light LED device. Lowery (US 5,959,316) discloses a multiple encapsulation of phosphor LED devices. Hohn (US 6,066,861) discloses a wavelength-converting casting composition. Taskar (US 6,734,465) discloses nanocrystalline-based phosphors for solid-state lighting. Stokes (US 6,791,259) discloses a solid-state illumination system containing a light-emitting diode. Odaki (US 6,521,915) discloses a light-emitting diode device with covering member.

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Contact Information

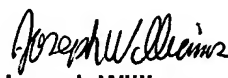
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571) 272-2461. The examiner can normally be reached on M-TH (7-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Quarterman
Examiner
Art Unit 2879

kq 
18 September 2005


Joseph Williams
Primary Examiner
Art Unit 2879